

Claims:

1. An actuator assembly comprising:

a guide member having an interlocking portion for positioning said guide member over a test device, said guide member having a through-hole and an interlocking portion, and

a stem being moveably positioned within said through-hole, said stem having a planar contact surface for uniformly engaging the test device, and

a mechanical stop for locking a position of said stem within said through-hole and maintaining said stem in contact with the test device.

2. The actuator assembly according to Claim 1, wherein said interlocking portion of said guide member comprises a slotted base.

3. The actuator assembly according to Claim 2, wherein said actuator assembly has an actuator for contacting said stem and urging said stem toward the test device.

4. The actuator assembly according to Claim 3, wherein said actuator has a threaded portion.

5. The actuator assembly according to Claim 4, wherein said mechanical stop comprises an adjustable nut having an inner portion capable of receiving said threaded portion of said actuator.

6. The actuator assembly according to Claim 2, wherein said slotted base has at least a single slot having a receiving portion and a locking portion for receiving a corresponding interlocking member.

7. The actuator assembly according to Claim 6, wherein said corresponding interlocking member is a set screw.

8. The actuator assembly according to Claim 6, wherein said corresponding interlocking member is a dowel pin.

9. The actuator assembly according to Claim 6, wherein said corresponding interlocking member comprises a non-conductive material.

10. The actuator assembly according to Claim 2, wherein said actuator assembly has a pair of slots for receiving an interlocking member within each of said pair of slots.

11. The actuator assembly according to Claim 6, wherein said corresponding interlocking member extends from a test socket assembly.

12. The actuator assembly according to Claim 2, wherein a compression spring is positioned within said guide member, said compression spring having a first end contacting said slotted base and a second end contacting a portion of said stem.

13. The actuator assembly according to Claim 12, wherein said compression spring comprises a non-conductive material.

14. The actuator assembly according to Claim 12, wherein said compression spring comprises an elastomer tube.

15. The actuator assembly according to Claim 11, wherein said stem has a vacuum cap wherein as a vacuum is applied to said vacuum cap, the test device is removed from said test socket assembly.

16. The actuator assembly according to Claim 1, wherein said interlocking portion of said guide member is an exposed slot base.

17. The actuator assembly according to Claim 16, wherein said exposed slot base has a plurality of slots for receiving a corresponding interlocking member.

18. The actuator assembly according to Claim 17, wherein each of said plurality of slots have a receiving portion at a bottom portion of said exposed slot base and a locking portion extending perpendicular to said receiving portion.

19. The actuator assembly according to Claim 18, wherein as said locking portion receives said corresponding interlocking member, a portion of said corresponding interlocking member is visually exposed from an outer wall of said guide member.

20. The actuator assembly according to Claim 17, wherein said corresponding interlocking member is comprises a conductive material.

21. The actuator assembly according to Claim 17, wherein said corresponding interlocking member comprises a non-conductive material.

22. The actuator assembly according to Claim 17, wherein said exposed slot base has a pair of slots for receiving a corresponding interlocking member.

23. The actuator assembly according to Claim 1, wherein said interlocking portion has a pair of wings wherein each of said pair of wings has an interlocking member at a lower engaging portion of each of said pair of wings.

24. The actuator assembly according to Claim 23, wherein each of said pair of wings has an upper portion wherein an upper portion of said pair of wings is pinched together said lower engaging portion separates.

25. The actuator assembly according to Claim 24, wherein said actuator assembly is interconnected to a test socket assembly by urging said engaging portion of said pair of wings into a receiving portion of said test socket assembly.

26. The actuator assembly according to Claim 23, wherein said mechanical stop is a set-screw.

27. The actuator assembly according to Claim 26, wherein said set-screw locks said stem by engaging said stem from a set-screw hole positioned within said guide member perpendicular to the direction of said through-hole.

28. An actuator for setting and maintaining a predetermined compression on a test device during testing, said actuator comprising:

a stem having a first end for contacting the test device, and a second end,

an actuator for contacting said second end of said stem, thereby advancing said stem toward the test device, and

an adjustable stop for contacting a portion of said actuator, said adjustable stop constructed and arranged to limit the advancement of said stem with respect to the test device.

29. A method for uniformly actuating a test device into a test socket comprising the steps of:

1) positioning an actuator assembly over said test device wherein said test device is positioned within a test socket assembly, and

2) interlocking said actuator assembly with said test socket assembly, and

3) actuating said actuator assembly wherein a contacting portion of said actuator assembly urges said test device into said test socket assembly, and

4) locking said actuator assembly such that said contacting portion maintains actuation contact with said test device.